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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: David R. Davis et al.

Title: CPU FAN ASSEMBLY

Docket No.: 450.232US2

Filed: December 26, 2001

Examiner: Yean H. Chang

Customer No.: 21186



Serial No.: 10/034110

Due Date: November 5, 2003

Group Art Unit: 2835

Confirmation No.: 1032

MS AF

Commissioner for Patents

P.O. Box 1450

Alexandria, VA 22313-1450


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SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.

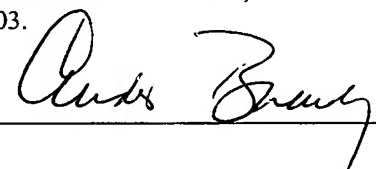
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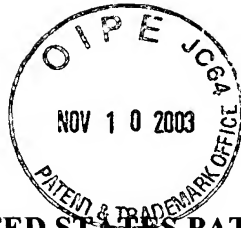
CUSTOMER NO. 32710

GATEWAY, INC.

P. O. Box 2000

610 Gateway Drive

North Sioux City, SD 57049



PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:)	
)	
David R. Davis et al.)	Examiner: Yean H. Chang
)	
Serial No.: 10/034110)	Group Art Unit: 2835
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)	
For: CPU FAN ASSEMBLY)	

APPELLANTS' BRIEF ON APPEAL

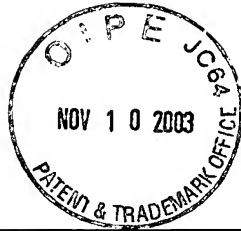
MAIL STOP APPEAL BRIEF - PATENTS

Commissioner for Patents
P.O.Box 1450
Alexandria, VA 22313-1450

Sir:

This Appeal Brief is presented in support of the Notice of Appeal filed on September 2, 2003 (received by the Office on September 5, 2003), from the final rejection of claims 1, 3-6, 32-34 and 36-51 of the above-identified application, as set forth in the Final Office Action mailed July 1, 2003.

The Appeal Brief is filed in triplicate. Please charge the requisite fee of \$330.00 set forth in 37 C.F.R. § 1.17(c) to Deposit Account 50-0439. Please charge any required additional fees or credit overpayment to Deposit Account 50-0439.



APPELLANTS' BRIEF ON APPEAL

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1. REAL PARTY IN INTEREST

The real party in interest, in addition to the above-named Applicant, is Gateway, Inc. (Delaware Corporation), P. O. Box 2000, 610 Gateway Drive, MD Y-04, North Sioux City, SD 59047, by virtue of an Assignment recorded on April 26, 1999, at Reel 9926/0817 for parent application Serial No. 09/299,305.

2. RELATED APPEALS AND INTERFERENCES

There are no other appeals or interferences known to Appellant that will have a bearing on the Board's decision in the present appeal.

3. STATUS OF THE CLAIMS

Claims 1, 3-6, 32-34 and 36-51 are pending in the application and have all been finally rejected. The rejected claims 1, 3-6, 32-34 and 36-51 are the subject of the present appeal.

4. STATUS OF AMENDMENTS

No amendments have been made subsequent to the Final Office Action mailed to the Appellants on July 1, 2003.

5. SUMMARY OF THE INVENTION

The present invention in one embodiment comprises a cooling assembly for a board having a plurality of components, wherein a first fan is configured to blow air through a first passage of an isolation assembly and a second fan is configured to blow air through an alternate passage. An isolation assembly contains a first of the plurality of components and is coupled to receive air from the first passage and from the alternate passage.

6. ISSUES PRESENTED FOR REVIEW

Whether claims 1, 3-6, 32-34 and 36-51 of the pending application are allowable over Behl (U.S. Patent 6,185,097) under 35 U.S.C. §102, and whether dependent claims 42 and 43, which depend from claim 34, are therefore subsequently allowable.

7. GROUPING OF CLAIMS

Although each claim recites separate limitations making each claim independently patentable, the pending claims all depend from independent claims 1 and 34. Because these claims are believed to be patentable for the same reasons, applicant believes the claims are appropriately addressed for purposes of this appeal as belonging to a single group, including claims 1, 34, and their dependents.

8. ARGUMENT

1) The Applicable Law

Anticipation under 35 U.S.C. §102 requires the disclosure in a single prior art reference of each element of the claim under consideration. *In re Dillon* 919 F.2d 688, 16 USPQ 2d 1897, 1908 (Fed. Cir. 1990) (en banc), cert. denied, 500 U.S. 904 (1991). It is not enough, however, that the prior art reference discloses all the claimed elements in isolation. Rather, “[a]nticipation requires the presence in a single prior reference disclosure of each and every element of the claimed invention, *arranged as in the claim.*” *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 730 F.2d 1452, 221 USPQ 481, 485 (Fed. Cir. 1984) (citing *Connell v. Sears, Roebuck & Co.*, 722 F.2d 1542, 220 USPQ 193 (Fed. Cir. 1983)) (emphasis added).

Further, to sustain a reference under 35 U.S.C. 103, the cited references must teach or suggest all the claim elements. M.P.E.P. § 2142 (citing *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed.Cir. 1991)). The Office Action must further provide specific, objective evidence of record for a finding of a suggestion or motivation to combine reference teachings and must

explain the reasoning by which the evidence is deemed to support such a finding. *In re Sang Su Lee*, 277 F.3d 1338, 61 USPQ2d 1430 (Fed. Cir. 2002).

2) *Discussion of the rejection of claims under 35 USC 102(e)*

Claims 1, 3-6, 32-34, 36-41, and 44-51 were rejected under 35 U.S.C. 102(e), as being unpatentable over Behl (U.S. Patent 6,185,097). Applicant respectfully requests reversal of this rejection.

Behl discusses a storage device housing having one or more fans, as is illustrated in Figure 6. The storage device housing serves as a housing for an assembly that “includes a memory storage device” Col. 1, lines 27-28, which is shown as a hard disk drive and is explicitly defined as a hard disk drive at Col. 1, lines 18-19. No mention is made of a circuit board accepting a plurality of components, including a first component, as is recited in independent claims 1 and 34 of the present invention. Although the office action alleges (*see, e.g.*, p. 2, article 2 of paper 11) that the hard disk drive 14 is a first component, it fails to consider the claimed board suitable for accepting a plurality of components, as is also recited in the pending claims. Applicant points out that these limitations recited in the preamble must be given weight, as the components recited are woven into and referenced in the elements of independent claims 1 and 34. More specifically, the first component of the plurality components received by a board is recited in various elements of the claims, and is structurally and functionally related to elements such as the isolation assembly, passages, and fan elements of the claims.

The pending claims that depend from claims 1 and 34 are further believed to be allowable, as they depend from these base claims shown to be in condition for allowance. These various claims are further allowable for their own reasons, such as claim 3’s recitation that the conduit is “separate from the first and second fans”, which is different from what is shown or taught in Behl. Claim 4 describes a heat sink operably coupled to the first component. Since the component in claim 1 is accepted on a board, and no such board is taught or described, claim 4

further distinguishes the invention from Behl. Claim 5 references multiple components on the board in the isolation assembly, while only a single memory device not coupled to a board is within each device bay of Behl. Claim 6 further specifies a plurality of components, and that air is drawn within the case. Neither of these is found in Behl. As the office action admits, Behl describes that “air is drawn from outside (22, fig. 1)”, not from within, as claimed in claim 6. These are but examples of further distinctions among these various dependent claims and the cited Behl reference.

The claims 1 and 34, and all claims that depend therefrom, are therefore believed to be allowable over Behl under 35 U.S.C. §102(e), as Behl fails to anticipate the recited board accepting a plurality of components, including a first component. Reversal of the rejection of these claims 1, 3-6, 32-34, 36-51 is therefore respectfully requested.

3) *Discussion of the rejection of claims under 35 USC § 103(a)*

Because claims 42 and 43, which are rejected under §103(a), are grouped with independent claim 34, the arguments presented above to claim 34 are believed to further apply to dependent claims 42 and 43. These claims are also believed to be in condition for allowance as dependent on an allowable base claim, for the reasons explained above.

Further, proper motivation to combine the references has not been shown, and Papa et al. is not cited as providing the elements missing from Behl. Because the combination of references does not show each and every element of claim 34, arranged as arranged in claim 34, a *prima facie* case of obviousness has not been established. Also, the statement that it would have been obvious to combine the references “since processors are heat-generating sources” is merely a subjective statement of belief, and insufficient to support the combination. In fact, the only mention of cooling found by Applicant in Papa et al. is with reference to “sets of perforations 177 in such patterns and numbers to provide effective cooling of the internal components of the chassis 170,” Col. 5, lines 1-3, reference to cooling power modules 105, Col. 6 lines 10-12, and

references to cooling network interface cards as shown in FIG. 6. There was no mention of heat generated by a CPU, or dissipating such, and hence no suggestion to combine Behl and Papa et al.

Because no proper motivation for combining references has been presented, because Papa does not address elements not present in Behl, and because these claims depend from a claim previously shown to be allowable, these claims are further believed to be allowable. Reversal of their rejection is therefore respectfully requested.

9. SUMMARY

Applicant believes the claims are in condition for allowance, and requests withdrawal of the rejections of claims 1, 3-6, 32-34 and 36-51. Reversal of the Examiner's rejections of claims 1, 3-6, 32-34 and 36-51 in this appeal is respectfully requested.

Respectfully submitted,

DAVID R. DAVIS et al.

By their Representatives,

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Date

Nov. 5 '03

By



John M. Dahl

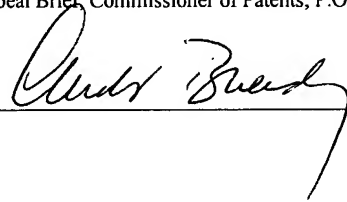
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Candis B. Buending

Name

Signature



APPENDIX I

THE CLAIMS ON APPEAL

1. (Previously presented) A cooling assembly for at least one board, the at least one board suitable for accepting a plurality of components including a first component, the cooling assembly comprising:
 - a passage;
 - a first fan suitable for passing air through the passage;
 - an isolation assembly for generally enclosing heat generated from the first component, wherein the first component is enclosed within the isolation assembly, the isolation assembly in communication with the passage, wherein the isolation assembly is removably attachable to a computer case without opening the computer case, and wherein the passage is separate from another heat-sensitive component within the computer case;
 - an alternate passage configured to provide an air flow path to the isolation assembly; and
 - a second fan suitable for passing air through the alternate passage.
2. (Cancelled)
3. (Previously presented) The cooling assembly of claim 1, wherein the alternate passage includes a conduit, separate from the first and second fans, in communication with the isolation assembly.
4. (Original) The cooling assembly of claim 1, and further comprising a heat sink operably coupled to the first component.

5. (Original) The cooling assembly of claim 1, wherein the plurality of components are enclosed within a case, and the air is drawn from outside the case.

6. (Original) The cooling assembly of claim 1, wherein the plurality of components are enclosed within a case, and the air is drawn from within the case.

7.-31. (Cancelled)

32. (Previously presented) The cooling assembly of claim 4, wherein the heat sink comprises a passive heat sink.

33. (Previously presented) The cooling assembly of claim 1, wherein the isolation assembly is configured to shield the first component from an amount of electromagnetic interference.

34. (Previously Amended) A cooling assembly for at least one board, the at least one board suitable for accepting a plurality of components including a first component, the cooling assembly comprising:

- a passage;

- a first fan suitable for passing air through the passage;

- an isolation assembly for generally enclosing heat generated from the first component, wherein the first component is enclosed within the isolation assembly, the isolation assembly in communication with the passage, and wherein the passage is separate from another heat-sensitive component within a computer case;

- an alternate passage configured to provide an air flow path to the isolation assembly; and

- a second fan suitable for passing air through the alternate passage.

35. (Cancelled)

36. (Previously Amended) The cooling assembly of claim 34, wherein the alternate passage includes a conduit in communication with the isolation assembly.

37. (Previously presented) The cooling assembly of claim 34, and further comprising a heat sink operably coupled to the first component.

38. (Previously presented) The cooling assembly of claim 34, wherein the plurality of components are enclosed within a case, and the air is drawn from outside the case.

39. (Previously presented) The cooling assembly of claim 34, wherein the plurality of components are enclosed within a case, and the air is drawn from within the case.

40. (Previously presented) The cooling assembly of claim 37, wherein the heat sink comprises a passive heat sink.

41. (Previously presented) The cooling assembly of claim 34, wherein the isolation assembly is configured to shield the first component from an amount of electromagnetic interference.

42. (Previously presented) The cooling assembly of claim 1, wherein the first component comprises a processor.

43. (Previously presented) The cooling assembly of claim 34, wherein the first component comprises a processor.

44. (Previously presented) The cooling assembly of claim 1, further comprising:
an exhaust hole in communication with the passage and suitable for
venting air through the computer case.
45. (Previously presented) The cooling assembly of claim 44, wherein an air path from the
first fan through the exhaust hole passes through the passage.
46. (Previously presented) The cooling assembly of claim 44, wherein the cooling assembly
is configured such that at least 80% of the air passing through the first fan
is vented through the exhaust hole.
47. (Previously presented) The cooling assembly of claim 44, wherein the cooling assembly
is configured such that substantially all of the air passing through the first
fan is vented through the exhaust hole.
48. (Previously presented) The cooling assembly of claim 34, further comprising:
an exhaust hole in communication with the passage and suitable for
venting air through the computer case.
49. (Previously presented) The cooling assembly of claim 48, wherein an air path from the
first fan through the exhaust hole passes through the passage.
50. (Previously presented) The cooling assembly of claim 48, wherein the cooling assembly
is configured such that at least 80% of the air passing through the first fan
is vented through the exhaust hole.

51. (Previously presented) The cooling assembly of claim 48, wherein the cooling assembly is configured such that substantially all of the air passing through the first fan is vented through the exhaust hole.